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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/316,549	05/24/1999	EMMANUEL GERLOVIN	PAS-093	7946

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EXAMINER	
JONES, HUGH M	

ART UNIT	PAPER NUMBER
2128	

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/316,549	GERLOVIN ET AL.	
	Examiner	Art Unit	
	Hugh Jones	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *20 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14, 16-19 and 21-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) *1-11,14,16-19, 21-29 and 31* is/are allowed.

6)☒ Claim(s) *12-13, 30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. Claims 1-33 of U. S. Application 09/316,549 filed on 24-May, 1999, are presented for examination. Claims 15, 20, 32-33 have been cancelled.

Claim Rejections - 35 USC 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

3. A person shall be entitled to a patent unless -

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 12-13, 30 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Sebastian et al. or Pro/Engineer Release 19 (1997 – Applicant's response to 1.56 and 1.105 – CD-ROM printout).

- ***Sebastian et al.*** disclose a computer-based engineering design system to design a part, a tool to make the part, and the process to make the part. The design system has a processor and a memory. The memory stores feature templates, each feature template being a representation of a primitive object having a form and a function. Each feature template is indexed by the function of the primitive object and includes a representation of a primitive geometric entity having the form of the primitive object. Each feature template can include information relating to a tool to make the

primitive object and a process to make the primitive object. ***The design system also includes an input device for receiving a request to design the part. This request includes one or more predetermined functions that the part performs. A core design module, executable by the processor, designs the part, the tool to make the part and process to make the part by accessing the plurality of feature templates in the memory to locate one or more primitive objects that perform the one or more predetermined functions.*** In particular, Sebastian et al. disclose providing a feature-based model of an object; providing a analysis; creating at least one feature in the model that contains the analysis; adding the feature to the model of the object; the analysis is an engineering analysis; the analysis is provided by a program other than the CAD system; a user of the CAD system defines and provides the analysis; modifying the model when the analysis is performed again; automatically updating the analysis feature based on the new results; the analysis feature creates output and wherein at least some of the output of the analysis feature is changed in the automatic updating. See fig. 6-7; col. 1, line 60 to col. 8, line 63; col. 11, lines 15-31; col. 18, lines 30-62; col. 20, lines 61-67.

Pro/Engineer Release 19 (1997 – Applicant's response to 1.56 and 1.105 – CD-ROM printout) disclose (see Book Name: Part Modeling User's Guide – "Part Modeling" and Book Name: Fundamentals – "Engineering Information") discloses:

- Book Name: Part Modeling User's Guide – "Part Modeling" discloses: engineering analysis: surface curvature analysis and curvature analysis.

- Book Name: Fundamentals – "Engineering Information") discloses: engineering analysis: "analyzing the model" (measuring, interference checks, surface analysis).

5. **As per the claims (S: Sebastian; P: Pro/Engineer):**

- in a computer-aided design (CAD) system, a method, comprising the computer-implemented steps of

- providing a feature-based model of an object (S: fig. 6 # 114, fig 8; P:);

- providing an analysis for acting on at least a portion of the model (S: fig. 6 (# 116, 118, col. 18, lines 17-62, col. 20, lines 61-67); P: see Book Name: Part Modeling User's Guide – "Part Modeling" and Book Name: Fundamentals – "Engineering Information") discloses: Book Name: Part Modeling User's Guide – "Part Modeling" discloses: engineering analysis: surface curvature analysis and curvature analysis; Book Name: Fundamentals – "Engineering Information") discloses: engineering analysis: "analyzing the model" (measuring, interference checks, surface analysis).);

- creating at least one feature in the model that contains the analysis (S: fig. 8, fig. 6 (# 116, 118, col. 18, lines 17-62, col. 20, lines 61-67); P: see Book Name: Part Modeling User's Guide – "Part Modeling" and Book Name: Fundamentals – "Engineering Information") discloses: Book Name: Part Modeling User's Guide – "Part Modeling" discloses: engineering analysis: surface curvature analysis and curvature analysis; Book Name: Fundamentals – "Engineering Information") discloses: engineering analysis: "analyzing the model" (measuring, interference checks, surface analysis).);

- adding the feature to the model of the object (S: fig. 8, fig. 6 (# 116, 118, col. 18, lines 17-62, col. 20, lines 61-67); P: see Book Name: Part Modeling User's Guide – "Part Modeling" and Book Name: Fundamentals – "Engineering Information") discloses: Book Name: Part Modeling User's Guide – "Part Modeling" discloses: engineering analysis: surface curvature analysis and curvature analysis; Book Name: Fundamentals – "Engineering Information") discloses: engineering analysis: "analyzing the model" (measuring, interference checks, surface analysis).);

- wherein the analysis is an engineering analysis (S: fig. 6 # 116, 118; P:);

- further comprising the step of performing the analysis on the model to yield results (S: fig. 6 # 116, 118; P: see Book Name: Part Modeling User's Guide – "Part Modeling" and Book Name: Fundamentals – "Engineering Information") discloses: Book Name: Part Modeling User's Guide – "Part Modeling" discloses: engineering analysis: surface curvature analysis and curvature analysis; Book Name: Fundamentals – "Engineering Information") discloses: engineering analysis: "analyzing the model" (measuring, interference checks, surface analysis).);

- wherein the results of the analysis comprise graphical information (S: fig. 6 # 36 , 36b, fig. 7 # 36, 102, 104; P: see Book Name: Part Modeling User's Guide – "Part Modeling" and Book Name: Fundamentals – "Engineering Information") discloses: Book Name: Part Modeling User's Guide – "Part Modeling" discloses: engineering analysis: surface curvature analysis and curvature analysis; Book Name: Fundamentals – "Engineering Information") discloses: engineering analysis: "analyzing the model" (measuring, interference checks, surface analysis).);

- further comprising the steps of displaying the results of the analysis (S: fig. 6 # 36, fig. 7 # 36, 102, 104; P: see Book Name: Part Modeling User's Guide – "Part Modeling" and Book Name: Fundamentals – "Engineering Information") discloses: Book Name: Part Modeling User's Guide – "Part Modeling" discloses: engineering analysis: surface curvature analysis and curvature analysis; Book Name: Fundamentals – "Engineering Information") discloses: engineering analysis: "analyzing the model" (measuring, interference checks, surface analysis).);

- wherein the analysis is provided by the CAD system (S: fig. 6 (# 116, 118, col. 18, lines 17-62, col. 20, lines 61-67) ; P: see Book Name: Part Modeling User's Guide – "Part Modeling" and Book Name: Fundamentals – "Engineering Information") discloses: Book Name: Part Modeling User's Guide – "Part Modeling" discloses: engineering analysis: surface curvature analysis and curvature analysis; Book Name: Fundamentals – "Engineering Information") discloses: engineering analysis: "analyzing the model" (measuring, interference checks, surface analysis).);

- wherein performing the analysis using an external program other than the CAD system , said analysis occurring prior to the creation of a feature incorporating the analysis (S: fig. 6 (# 116, 118, col. 18, lines 17-62, col. 20, lines 61-67) ; P: see Book Name: Part Modeling User's Guide – "Part Modeling" and Book Name: Fundamentals – "Engineering Information") discloses: Book Name: Part Modeling User's Guide – "Part Modeling" discloses: engineering analysis: surface curvature analysis and curvature analysis; Book Name: Fundamentals – "Engineering Information") discloses:

engineering analysis: "analyzing the model" (measuring, interference checks, surface analysis).);

- wherein a user of the CAD system defines and provides the analysis (S: fig. 6 # 36b; P: see Book Name: Part Modeling User's Guide – "Part Modeling" and Book Name: Fundamentals – "Engineering Information") discloses: Book Name: Part Modeling User's Guide – "Part Modeling" discloses: engineering analysis: surface curvature analysis and curvature analysis; Book Name: Fundamentals – "Engineering Information") discloses: engineering analysis: "analyzing the model" (measuring, interference checks, surface analysis).).

Allowable Subject Matter

6. Claims 1-11, 14, 16-19, 21-29, 31 are allowed over the prior art of record. The following is an examiner's statement of reasons for allowance of claims 1-11, 14, 16-19, 21-29, 31: the limitation of automatically updating the feature following a re-computation of the analysis, is, in the context of the claimed invention, novel and non-obvious over the prior art of record.

Response to Arguments

7. Applicant's arguments filed 12/20/2004 have been fully considered but they are not persuasive.

Response to Arguments - 112(1, 2) Rejections **(pp. 10-12, response of 12/20/2004)**

8. Applicant's arguments filed 12/20/2004 have been fully considered and they are persuasive. In particular, Applicants arguments in the second paragraph of page 10 of the 12/20/2004 response are persuasive. Applicant's arguments on page 11 of the response relating to incorporation by reference and the request for the source code are also persuasive. The 112(1) rejections are withdrawn. Applicants are thanked for the argument.

9. Applicant's comments beginning in the last paragraph on page 10 of the 12/20/2004 response are noted and appreciated. The Examiner also apologizes for his part in any misunderstanding of Applicant's arguments.

10. The 112(2) rejections are withdrawn in view of Applicant's arguments on page 11 of the Applicant's reply.

***Response to Arguments - Double Patenting Rejections* (pg. 12; response of 12/20/2004)**

11. Applicants are thanked for the Terminal Disclaimer with respect to the application. The double patenting rejection is therefore withdrawn.

***Response to Arguments - 102 Rejections* (pp. 12-13, response of 12/20/2004)**

12. Applicant's arguments filed 12/20/2004 been fully considered but they are not persuasive.

13. Sebastian discloses Pro/Engineer. ***Sebastian et al.*** disclose a computer-based engineering design system to design a part, a tool to make the part, and the process to

make the part. The design system has a processor and a memory. The memory stores feature templates, each feature template being a representation of a primitive object having a form and a function. Each feature template is indexed by the function of the primitive object and includes a representation of a primitive geometric entity having the form of the primitive object. Each feature template can include information relating to a tool to make the primitive object and a process to make the primitive object. ***The design system also includes an input device for receiving a request to design the part. This request includes one or more predetermined functions that the part performs. A core design module, executable by the processor, designs the part, the tool to make the part and process to make the part by accessing the plurality of feature templates in the memory to locate one or more primitive objects that perform the one or more predetermined functions.*** In particular, Sebastian et al. disclose providing a feature-based model of an object; providing a analysis; creating at least one feature in the model that contains the analysis; adding the feature to the model of the object; the analysis is an engineering analysis; the analysis is provided by a program other than the CAD system; a user of the CAD system defines and provides the analysis; modifying the model when the analysis is performed again; automatically updating the analysis feature based on the new results; the analysis feature creates output and wherein at least some of the output of the analysis feature is changed in the automatic updating. See fig. 6-7; col. 1, line 60 to col. 8, line 63; col. 11, lines 15-31; col. 18, lines 30-62; col. 20, lines 61-67.

14. Applicant's argument against Sebastian is that the teaching in Sebastian does not disclose the *automatically updating* feature. However, that has not been claimed in claims 12-13, 30. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the automatically updating) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

15. ***Pro/Engineer Release 19*** (1997 – Applicant's response to 1.56 and 1.105 – CD-ROM printout) disclose (see Book Name: Part Modeling User's Guide – "Part Modeling" and Book Name: Fundamentals – "Engineering Information") discloses:

- Book Name: Part Modeling User's Guide – "Part Modeling" discloses: engineering analysis: surface curvature analysis and curvature analysis.

- Book Name: Fundamentals – "Engineering Information") discloses: engineering analysis: "analyzing the model" (measuring, interference checks, surface analysis).

16. Note particularly fig. 6 (# 116, 118); fig. 7; col. 18, lines 17-62; col. 20, lines 61-67.

17. The argument against Pro/Engineer Release 19 appears to be that the later release is considered to be Applicant's improvement upon earlier versions and that therefore the claims must be novel. This is not persuasive and is a circular argument. Applicants have not attempted to explain how the claimed invention is novel or non-obvious over the applied prior art.

Conclusion

18. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

19. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be:

directed to:

Dr. Hugh Jones telephone number (703) 305-0023, Monday-Thursday 0830 to 0700 ET, ***or*** the examiner's supervisor, Kevin Teska, telephone number (703) 305-9704. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, telephone number (703) 305-3900.

mailed to: Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: (703) 308-9051 (for formal communications intended for entry) ***or***

(703) 308-1396 (for informal or draft communications, please label

A*PROPOSED*≅ or A*DRAFT*≅).

Dr. Hugh Jones

Primary Patent Examiner

April 17, 2005

HUGH JONES PhD
PRIMARY PATENT EXAMINER
TECHNOLOGY CENTER 2100